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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,308	07/13/2001	Robert S. Blackmore	POU920000146US1	6080

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EXAMINER	
JEAN GILLES, JUDE	

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/905,308	BLACKMORE ET AL.	
	Examiner	Art Unit	
	Jude J. Jean-Gilles	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Action is in regards to the Reply received on 01/13/2006.

Response to Amendment

1. This office action is responsive to communication filed on 01/13/2006. Claim 1 is amended. Claims 8-10 are newly added. Claims 1-10 are pending. Claims 1-10 represent a method and apparatus for a "Recovery Support for Reliable Messaging."

Response to Arguments

2. Applicant's arguments with respect to claims 1, 4, and 7 have been carefully considered, but are not deemed fully persuasive. Applicant's arguments are deemed moot in view of the existing ground of rejection as explained here below.

The dependent claims stand rejected as articulated in the Previous Office Action and all objections not addressed in Applicant's response are herein reiterated.

In response to Applicant's arguments, 37 CFR § 1.11(c) requires applicant to "clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. He or she must show the amendments avoid such references or objections."

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaman et al (Varman) U.S. 6,011,780 in view of Moy (Moy) U.S. patent No. 6,031,817.

Regarding claim 1: Vaman discloses the invention substantially as claimed. Vaman et al teach a method for providing reliable communication in a system of directly connected [an interconnected network of data processing nodes (*figs. 1 and 2; column 7, lines 12-15*), said method comprising:

detecting a failure of nodes or communication links in a system using a heartbeat signal provided over a separate path to indicate to other ones of said nodes in said system that said at least one of said nodes or said communications link is not functioning (*column 11, lines 11-28*);

establishing an instance identifier associated with said failure (*column 12, lines 9-17*);

Vaman et al further teach sending notification of said failure (*column 7, lines 39-42*), including said instance identifier, to other nodes having existing communication links with said at least one failed node (*column 12, lines 9-25*); However, Vaman et al are silent on how to terminate, at said notified nodes, pending communication links that

involve said at least one failed node, said termination being carried out in response to said notification; and does not show the details of an instance identifier.

In the same field of endeavor, Moy discloses "*the one switching node further includes a communication link instance identifier and a communication link instance identifier control. The communication link instance identifier provides communication link instance values for the communication links connected to the switching node, and the communication link instance identifier control for controlling the communication link instance value provided by the communication link instance identifier in relation to the operational status determined by the communication link operational status determination element*" [*see Moy; column 2, lines 47-64*]. Furthermore, Moy teaches "*to establish a virtual circuit, a switching node 11(n), as originating switching node, generates a "virtual circuit establishment" message that includes such information as the identification of the successive communication links which define the path for the virtual circuit and their respective instance values, and transmits it over the path for the virtual circuit to the terminating switching node 11(n.sub.T). The terminating switching node, in turn, generates an acknowledgment message acknowledging the virtual circuit establishment. Both the establishment and acknowledgment messages include the communication link instance values, and, when the originating switching node 111(n.sub.O) receives the acknowledgment message, it can use the communication link instance values identified in the acknowledgment message to verify that the communication link instances for which the virtual circuit was established are the current communication link*

instances for the respective communication links as maintained in its network topology database" (See Moy; column 14, lines 14-44).

Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Moy's teachings of detecting and terminating a transmission line failure with the teachings of Vaman et al, for the purpose of improving the ability of a network "*to monitor node movement and take management actions to prevent disruption*" as stated by Vaman in lines 38-43 of column 8. By this rationale, **claim 1** is rejected.

Regarding **claim 2:** The combination Vaman- Moy teaches the method of claim 1 further including the step of detecting that said at least one failed node is no longer in a failed state and resuming communications with that node using an incremented value for said instance identifier. [*see Vaman, column 11, lines 47-53, column 16, lines 15-16, 38, and 47*]. By this rationale **claim 2** is rejected.

Regarding **claim 3:** The combination Vaman- Moy teaches the method of claim 2 further including the step of resuming communications with said other nodes using said incremented instance identifier [*see Vaman, column 11, lines 47-53, column 16, lines 15-16, 38, and 47*]. By this rationale **claim 3** is rejected.

Regarding claim 4: The combination Vaman- Moy teaches the invention substantially as claimed. Vaman et al teach a data processing system comprising:

a plurality of interconnected data processing nodes (Varman; *column 7, lines 12-15; figs. 1 and 2*);

heartbeat signal generators within each said node for providing a signal over a separate path to others of said nodes indicative of node failure status (Varman; *column 11, lines 11-28*);

heartbeat signal detectors within said nodes for indicating that a certain node has failed (Varman; *column 12, lines 9-17*);

Vaman et al further teach a first program within said nodes for establishing an instance identifier associated with each node failure and for transmitting notification of said failure and said instance identifier to nonfailed nodes (Varman; *column 9, lines 24-63; column 16, appendix A*);

a second program within said nodes for terminating, at said notified nodes, pending communication links that involve said at least one failed node, said termination being carried out in response to said notification (Varman; column 12, lines 15-57).

Regarding **claim 5:** The combination Vaman- Moy teaches the data processing system of claim 4 in which said heartbeat signal detectors also provide an indication that a failed node has returned to functioning status. [*see Vaman, column 9, lines 37-54*]. By this rationale **claim 5** is rejected.

Regarding **claim 6:** The combination Vaman- Moy teaches the data processing system of claim 5 further comprising a third program within said nodes which resumes communication with nodes that have returned to functioning status, said communication including transmission of a new instance identifier. [*see Vaman, column 11, lines 21-28*]. By this rationale **claim 6** is rejected.

Regarding claim 7: The combination Vaman-Moy teaches a computer program product comprising a computer readable medium (see Varman; *fig. 1, intelligent controller, ATM switch*) on which is stored program means (*see Varman; column 8, lines 13-18*) for:

detecting a failure of nodes or communication links in a system a system of directly connected data processing nodes, using a heartbeat signal provided over a separate path [mechanism] to indicate to said nodes that at least one of said nodes or said communication links are functioning or have failed (*see Varman; column 11, lines 11-28*);

establishing an instance identifier associated with said failure (*see Varman; column 12, lines 9-17*);

Vaman et al further teach sending notification of said failure, including said instance identifier, to other nodes having existing communication links with said at least one failed node (*see Varman; column 12, lines 9-25*);. [see fig. 2A; column 6, lines 8-65];

Terminating, at said notified nodes, pending communication links that involve said at least one failed node, said termination being carried out in response to said notification [see McAllister; see fig. 2A; column 6, lines 8-65].

Regarding claim 8: The combination Vaman-Moy teaches the method of claim 1, wherein said instance identifier provides an indication that a failure event has occurred [*see Moy; column 2, lines 47-64;* column 14, lines 14-44].

Regarding claim 9: The combination Vaman-Moy teaches the data processing system of claim 4, wherein said instance identifier provides an indication that a failtlre event has occurred [*see Moy; column 2, lines 47-64;* column 14, lines 14-44].

Regarding claim 10: The combination Vaman-Moy teaches the computer program product of claim 7, wherein said instance identifier provides an indication that a failure event has occurred [*see Moy; column 2, lines 47-64;* column 14, lines 14-44].

Response to Arguments

5. Applicant's Request for Reconsideration filed on 01/13/2006 has been carefully considered but is not deemed fully persuasive. However, because there exists the likelihood of future presentation of this argument, the Examiner thinks that it is prudent to address Applicants' main points of contention.

A. Applicants submit that the combination of record fails to describe, teach, or suggest an instance identifier

6. As to "Point A" it is the position of the Examiner that the Zarman teaches the limitation of "an instance identifier". However, in view of Applicant's remarks, new patent of Moy teaches the new limitation of the claimed invention as in claims 8-10[*see Zellner, column 9, lines 22-67*].

Examiner notes with delight that no new matter has been added and that the new claims are supported by the application as filed. However, applicant has failed in presenting claims and drawings that delineate the contours of this invention as

compared to the cited prior art. Applicant has failed to clearly point out patentable novelty in view of the state of the art disclosed by the references cited that would overcome the 103(a) rejections applied against the claims, the rejection is therefore sustained.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from examiner should be directed to Jude Jean-Gilles whose telephone number is (571) 272-3914. The examiner can normally be reached on Monday-Thursday and every other Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley, can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-9000.

Jude Jean-Gilles

Patent Examiner

Art Unit 2143

DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

JJG

March 31, 2006